

THE BRAIN: OUR SENSE OF SELF		
Colorado Model Content Standards: Science – Grades 6 – 8		
Lesson	Standard	Descriptor
2, 3, 4	1.1	Ask questions and state hypotheses that lead to different types of scientific investigations (<i>for example: experimentation, collecting specimens, constructing models, researching scientific literature</i>).
3, 4	1.2	Use appropriate tools, technologies, and metric measurements to gather and organize data and report results.
All lessons	1.3	Interpret and evaluate data in order to formulate logical conclusions.
2, 3, 4	1.4	Demonstrate that scientific ideas are used to explain previous observations and to predict future events (<i>for example: plate tectonics and future earthquake activity</i>).
1, 2, 3, 4	1.5	Identify and evaluate alternative explanations and procedures.
1, 3, 4	1.6	Communicate results of their investigations in appropriate ways (<i>for example: written reports, graphic displays, oral presentations</i>).
2, 3, 4	3.2	Human body systems have specific functions and interaction (<i>for example: circulatory and respiratory, muscular and skeletal</i>).
2, 3, 4	3.3	There is a differentiation among levels of organization (cells, tissues, and organs) and their roles within the whole organism.
3, 4	3.6	Different types of cells have basic structures, components and functions (<i>for example: cell membrane, nucleus, cytoplasm, chloroplast, single-celled organisms in pond water, Elodea, onion cell, human cheek cell</i>).
4, 5	3.7	There are noncommunicable conditions and communicable diseases (<i>for example: heart disease and chicken pox</i>).
4	3.10	Chromosomes and genes play a role in heredity (<i>for example, genes control traits, while chromosomes are made up of many genes</i>).
4	3.11	Changes in environmental conditions can affect the survival of individual organisms, populations, and entire species.
4	3.13	Individual organisms with certain traits are more likely than others to survive and have offspring.
4	5.1	A controlled experiment must have comparable results when repeated.
2, 4, 5	5.2	Scientific knowledge changes as new knowledge is acquired and previous ideas are modified (<i>for example: through space exploration</i>).
2, 4	5.3	Contributions to the advancement of science made by people in different cultures and at different times in history.
2, 3, 4	5.4	Models can be used to predict change (<i>for example: computer simulation, video sequence, stream table</i>).
2, 3, 4, 5	5.5	There are interrelationships among science, technology, and human activity that affect the world.

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Colorado Model Content Standards: Mathematics – Grades 5 – 8		
Lesson	Standard	Benchmark
4	1.1	Demonstrate meanings for integers, rational numbers, percents, exponents, square roots, and pi (π), and use physical materials and technology in problem-solving situations.
4	2.1	Represent, describe, and analyze patterns and relationships using tables, graphs, verbal rules, and standard algebraic notation.
4	2.3	Analyze functional relationships to explain how a change in one quantity results in a change in another (for example, how the area of a circle changes as the radius increases, or how a person's height changes over time).
4	3.1	Read and construct displays of data using appropriate techniques (for example, line graphs, circle graphs, scatter plots, box plots, stem-and-leaf plots) and appropriate technology.
4	3.3	Evaluate arguments that are based on statistical claims.
4	3.4	Formulate hypotheses, draw conclusions, and make convincing arguments based on data analysis.
4	5.2	Estimate, make, and use direct and indirect measurements to describe and make comparisons.
4	5.3	Read and interpret various scales including those based on number lines, graphs, and maps.
4	6.1	Use models to explain how ratios, proportions, and percents can be used to solve real-world problems.
4	6.4	Select and use appropriate algorithms for computing with commonly used fractions and decimals, percents, and integers in problem-solving and determine whether the results are reasonable.
Colorado Model Content Standards: Reading & Writing – Grades 5 – 8		
Lesson	Standard	Descriptor
All lessons	1.A	Using a full range of strategies to comprehend essays, speeches, autobiographies, and first-person historical documents in addition to directions, nonfiction material, technical writing, newspapers, and magazines.
2, 3, 4, 5	2.A	Writing stories, letters, and reports with greater detail and supporting material.
All lessons	2.B	Choosing vocabulary and figures of speech that communicate clearly.
All lessons	2.F	Writing and speaking in the content areas (<i>for example, science geography, history, literature</i>), using the technical vocabulary of the subject accurately.
2, 3, 4, 5	2.G	Recognizing stylistic elements such as voice, tone, and style.
All lessons	3.D	Using simple, compound, complex, and compound/complex sentences in writing and speaking.
2, 3, 4, 5	3.G	Expanding spelling skills to include more complex words.
2, 3, 4, 5	3.H	Demonstrating use of conventional spelling in their published works.
2, 3, 4, 5	4.A	Recognizing an author's or speaker's point of view and purpose, separating fact from opinion.

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All lessons	4.B	Using reading, writing, speaking, listening, and viewing skills to solve problems and answer questions.
All lessons	4.C	Making predictions, drawing conclusions, and analyzing what they read, hear, and view.
All lessons	4.D	Recognizing, expressing, and defending a point of view orally in an articulate manner and in writing.
3, 4, 5	5.C	Locating and selecting relevant information.
3, 4	5.D	Using available technology to research and produce an end-product that is accurately documented.

National Health Education Standards – Grades 6 – 8: cited from pre-publication document of National Health Education Standards, Pre K-12, American Cancer Society, December 2005 – August 2006

Lesson	Standard	Performance Indicator
4	1.8.1	Analyze the relationship between healthy behaviors and personal health.
4	1.8.3	Analyze how the environment impacts personal health.
4	1.8.4	Describe how family history can impact personal health.
4	1.8.7	Describe the benefits and barriers to practicing healthy behaviors.
4	1.8.8	Examine the likelihood of injury or illness if engaging in unhealthy behaviors.
4	1.8.9	Examine the potential seriousness of injury or illness if engaging in unhealthy behaviors.
4	2.8.1	Examine how family influences the health of individuals.
4	2.8.3	Describe how peers influence healthy and unhealthy behaviors.
4	2.8.8	Explain the influence of personal values and beliefs on individual health practices and behaviors.
4	2.8.9	Describe how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors.
4	3.8.1	Analyze the validity of health information, products, and services.
4	4.8.1	Apply effective verbal and nonverbal communication skills to enhance health.
4	5.8.1	Identify circumstances that can help or hinder healthy decision-making.
4	5.8.2	Determine when health-related situations require the application of a thoughtful decision-making process.
4	5.8.3	Distinguish when individual or collaborative decision-making is appropriate.
4	5.8.5	Predict the potential short and long-term impact of each alternative on self and others.
4	5.8.6	Choose healthy alternatives over unhealthy alternatives when making a decision.
4	5.8.7	Analyze the outcomes of a health-related decision.
4	6.8.1	Assess personal health practices.
4	6.8.2	Develop a goal to adopt, maintain, or improve a personal health practice.
4	6.8.3	Apply strategies and skills needed to attain a personal health goal.
4	6.8.4	Describe how personal health goals can vary with changing abilities, priorities, and responsibilities.
4	7.8.1	Explain the importance of assuming responsibility for personal health behaviors.

05/2007 Colorado Academic Standards: http://www.cde.state.co.us/cdeassess/documents/olr/k12_standards.html

National Health Education Standards: http://www.aahperd.org/aahe/pdf_files/standards.pdf#search=%22national%20health%20standards%22

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4	7.8.2	Demonstrate healthy practices and behaviors that will maintain or improve the health of self and others.
4	7.8.3	Demonstrate behaviors to avoid or reduce health risks to self and others.
4	8.8.1	State a health enhancing position on a topic and support it with accurate information.
4	8.8.2	Demonstrate how to influence and support others to make positive health choices.
4	8.8.4	Identify ways that health messages and communication techniques can be altered for different audiences.